PHILOSOPHICAL MAGAZINE LETTERS, 1993, VOL. 68, NO. 6, 367–369

SUBJECT INDEX

Vol. 68

	PAGE
Aboav's rule in a Voronoi partition	69
AgAsS glasses, photo properties of	81
Al, f.c.c. thallium inclusions in	131
AlCoCu quasicrystal	225
$Al_{62}Cu_{20}Co_{15}Si_3$ quasicrystals, structure of	39
AlCuFe, icosahedral, dislocations in	273, 279
AlPdMg quasicrystals	123
AlPdMn quasicrystals, diffusion in	315
Amorphous silicon, electrons and holes in	265
Antiphase boundaries in TiAl	13
Ar ion milling of II–VI semiconductors	1
Bipolaron model of high T_c superconductors	247
$Bi_2Sr_2CaCu_2O_x$ superconductors	117
Bleaching of amorphous GeSe	73
Boron, diffusion of in Fe	99
Carbon films, diamond-like	167
Cellular patterns, growth in	363
Charge density in TiAl	29
Coarsening cellular patterns, growth in	363
$Co_{48}Ga_{52}$, point defect elimination in	53
Copper, deformation banding in	185
Copper oxide superconductors, resistivity of	245
Crack growth in SiN	283
Crack networks in thin films	63
Creep in AlCoCu quasicrystal	225
CuPd, electrical resistivity in	137
Defect creation in Si:H	159
Defects in nanocrystalline PdH	335
Defects in TiAlNbMn	289
Deformation banding in copper	185
Deformed FeCo, order in	327
Diamond-like carbon films	167
Diffusion of Mn in AlPdMn	315
Dislocation arrays, disordered, stress in	297
Dislocation slip and intergranular sliding	207
Dislocations in icosahedral AlCuFe	273, 279
Dislocations in quasicrystals	321
Dislocations in TiAl subboundaries	21
Disordered CuPd, electrical properties of	137
Domain boundaries in Ni_3Ga	107
Fe, diffusion of boron in	99
FeCo, deformed, order in	327
Fibre-push-out test, friction and stress in	5
Friction and stress in fibre-push-out test	5
GeSe, amorphous, bleaching of	73
Glassy AgAsS, photo properties of	81

PAGE

Grain boundary sliding in PbSn 201
Grain growth, 2D, motion of vertices in 93
Grey–white tin interface 237

Helium bubble growth in Pd 257
$HgBa_2CaCu_2O_{6+\delta}$, superconductivity in 345

Imaging of surfaces in keV range 179
Interface melting in Pb embedded in Zn 215
Intergranular sliding and dislocation slip 207
Ionic fluids in microporous ionic matrices 357

KTe, liquid, electrical properties of 85

Liquid KTe, electrical properties of 85

MgO, secondary-electron emission from 145
Microporous ionic matrix for ionic fluids 357
Misfit dislocations in SiGe layers 195
Mobility in SiC : H with low C 173

$NaCuO_2$, X-ray photoemission of 153
Ni_3Ga, domain boundaries in 107
Non-Fermi liquids, instabilities in 251

Pb embedded in Zn 215
PbSn, grain-boundary sliding in 201
Pd, helium bubble growth in 257
PdH, nanocrystalline, defects in 335
Photoemission study of $NaCuO_2$ 153
Plastic deformation of spherical bodies 191
Plastic damage in SiC single crystals. 45
Point defect elimination in $Co_{48}Ga_{52}$ 53
Porous Si, structure of 353

Quasicrystal AlPdMg system 123
Quasicrystalline $Al_{62}Cu_{20}Co_{15}Si_3$, structure of 39
Quasicrystals, dislocations in 321

Rutile, twin boundaries in 309

Secondary electron emission from MgO 145
Semiconductors, II–VI, Ar ion milling of 1
Si, porous, structure of 353
Si : H, defect creation in 159
SiC, plastic damage in 45
SiC : H, electron drift mobility in 173
SiGe layers, misfit dislocations in 195
Silicon, amorphous, electrons and holes in 265
SiN, subcritical crack growth in 283
Spherical bodies, plastic deformation of 191
$SrTiO_3$ substrate for superconductor growth 117
Stress fields in dislocation arrays 297
Superconductivity, high T_c, bipolaron model of 247
Superconductivity in $HgBa_2CaCu_2O_{6+\delta}$ 345
Superconductivity in ZrCe 231
Superconductor instability in non-Fermi liquids 251

PAGE

Superconductors, copper oxide, resistivity of 245
Surfaces, imaging of in keV range 179

Thallium, f.c.c., in Al 131
Thin films, crack networks in 63
TiAl, antiphase boundaries in 13
TiAl, charge density in 29
TiAl subboundaries, dislocations in 21
TiAlNbMn, defect analysis in 289
Tin, grey–white interface 237
Twin boundaries in rutile 309

Vertices, motion of in 2D grain growth 93
Voronoi partition, Aboav's rule in 69

ZrCe, superconductivity in 231

PHILOSOPHICAL MAGAZINE LETTERS, 1993, VOL. 68, NO. 6, 371–374

INDEX OF AUTHORS (WITH TITLES)

Vol. 68

PAGE

Adriaenssens, G. J., *see* Öktü, Ö.
Amarendra, G., *see* Rajaraman, R.
Andersen, H. H., *see* Johnson, E.
Aride, J., *see* Sassi, O.
Asai, J., *see* Nakajima, H.
Averback, R. S., *see* Höfler, H. J.

Baker, I., *see* Zhao, L.
Balatsky, A. V.: Superconducting instability in a non-Fermi liquid: scaling approach 251
Baranovskii, S. D., *see* Öktü, Ö.
Baudelet, B., *see* Nazarov, A. A.
Berrada, A., *see* Sassi, O.
Bleloch, A. L., *see* Müllejans, H.
Bristowe, P. D., *see* Lee, W.-Y.

Chanel, L., *see* Meaudre, R.
Chattopadhyay, K., *see* Goswami, R.
Chen, F., *see* Gao, L.
Chu, C. W., *see* Gao, L.

Dai, M. X.: Author's reply. Response to the 'comment' on the convergent-beam electron diffraction study of the Burgers vector of quasicrystalline dislocations 279
Denquin, A., and Naka, S.: On the existence of transformation-induced antiphase boundaries in the γ-phase of two-phase TiAl-based alloys 13
Duggan, B. J., *see* Lee, C. S.

Eastman, J. A., Fitzsimmons, M. R., and Thompson, L. J.: Anomalous defect behaviour resulting from the hydriding of nanocrystalline palladium 335
Edagawa, K., *see* Koshikawa, N.
Enderby, J. E., *see* Fortner, J.
Erbudak, M., Hochstrasser, M., Schulthess, T., and Wetli, E.: Real-space imaging of surfaces by electron scattering in the kiloelectronvolt range 179

Feng, J., Wang, R., and Wang, Z.: A new six-dimensional Burgers vector of dislocations in icosahedral quasicrystals determined by convergent-beam electron diffraction 321
Fitzsimmons, M. R., *see* Eastman, J. A.
Fortes, M. A.: Applicability of Aboav's rule to a three-dimensional Voronoi partition 69
Fortner, J., Saboungi, M.-L., and Enderby, J. E.: Electrical properties of an unusual liquid semiconductor: K–Te 85
Fox, A. G.: Is it feasible to determine the bonding charge density of stoichiometric γ-TiAl through structure factor measurements? 29
Fraser, H. L., *see* Kad, B. K.

Gao, L., Chen, F., Meng, R. L., Xue, Y. Y., and Chu, C. W.: Superconductivity up to 147 K in $HgBa_2CaCu_2O_{6+\delta}$ under quasi-hydrostatic pressure 345
Gao, Y., *see* Lee, W.-Y.
Gleiter, H., *see* Höfler, H. J.
Gomes, M. A. F., and Melo, G. S. V.: Topological aspects in the plastic deformation of spherical bodies 191
Gopinathan, K. P., *see* Rajaraman, R.
Goswami, R., and Chattopadhyay, K.: The superheating of Pb embedded in a Zn matrix. The role of interface melting 215
Gregora, I., *see* Mareš, J. J.

Heinonen, M. H., *see* Leiro, J. A.
Hiesgen, R., *see* Pezzotti, G.
Hobbs, D., *see* Weaire, D.
Hochstrasser, M., *see* Erbudak, M.
Höfler, H. J., Averback, R. S., and Gleiter, H.: Diffusion of boron in nanocrystalline iron. A new type of diffusion kinetics: type C' 99
Honda, Y., *see* Koshikawa, N.
Howie, A., *see* Müllejans, H.

Jiang, N., and Sun, Y. Q.: Antiphase-domain-boundary tubes in Ni_3Ga involving secondary slip 107
Johansen, A., *see* Johnson, E.
Johnson, E., Johansen, A., Thoft, N. B., Andersen, H. H., and Sarholt-Kristensen. L.: Nanosized f.c.c. thallium inclusions in aluminium 131

Kad, B. K., and Fraser, H. L.: Observation of ⟨100] dislocations in $\frac{1}{2}$⟨112] reacted dislocation networks in lamellar TiAl subboundaries. 21
Karlsson, K. H., *see* Leiro, J. A.
Koshikawa, N., Edagawa, K., Honda, Y., and Takeuchi, S.: Formation of three types of quasicrystal in the Al–Pd–Mg system 123
Krištofik, J., *see* Mareš, J. J.

Lauwerens, W., *see* Öktü, Ö.
Lee, C. S., Duggan, B. J., and Smallman, R. E.: Deformation banding in copper . 185
Lee, W.-Y., Bristowe, P. D., Gao, Y., and Merkle, K. L.: The atomic structure of twin boundaries in rutile 309
Leiro, J. A., Heinonen, M. H., Werfel, F., Nordström, E. G., and Karlsson, K. H.: X-ray photoemission study of $NaCuO_2$ 153
Lockyer, R., Rice-Evans, P., and Smith, C.: Positron annihilation study of diamond-like carbon films 167
Loretto, M. H., *see* Zhang, X. D.
Lu, G.: Ar^+-ion milling of II–VI semiconducting materials 1

Mai, Y.-W., *see* Zhou, L.-M.
Mareš, J. J., Krištofik, J., and Gregora, I.: Remarks concerning the structure of porous silicon 353
Masumoto, T., *see* Nakajima, H.
Meaudre, M., *see* Meaudre, R.
Meaudre, R., Vignoli, S., Meaudre, M., and Chanel, L.: Kinetics of defect creation in hydrogenated amorphous silicon by light pulses 159
Melo, G. S. V., *see* Gomes, M. A. F.
Meng, R. L., *see* Gao, L.
Merkle, K. L., *see* Lee, W.-Y.
Mishra, R. S., Singh, A. K., and Roy, T.: Creep of an Al–Co–Cu quasicrystal . . 225
Mitsui, K., and Takahashi, M.: Change in electrical resistivity during continuous heating in ordered and disordered Cu–15 at.%Pd alloys 137
Mott, N. F.: Spin-gap effects in the resistivity of copper oxide superconductors . 245
Mott, N. F.: The bipolaron model of high-T_c superconductivity: a discussion of overdoping 247
Moya, G., *see* Sassi, O.
Mukherjee, A. K., *see* Zelin, M. G.
Mulheran, P. A.: Crack networks in thin films 63
Müllejans, H., Bleloch, A. L., Howie, A., and Walsh, C. A.: Secondary-electron emission from magnesium oxide 145

Nagels, P., *see* Tichý, L.
Naka, S., *see* Denquin, A.
Nakajima, H., Asai, J., Nonaka, K., Shinbo, I., Tsai, A. P., and Masumoto, T.: Self-diffusion of manganese in Al–Pd–Mn icosahedral quasicrystal 315

Nazarov, A. A., and Romanov, A. E.: Stress fields of disordered dislocation arrays: finite walls 297
Nazarov, A. A., Romanov, A. E., and Baudelet, B.: Long-range stress fields of disordered dislocation arrays: two types of disorder, and two decay laws . . 303
Nishida, T., *see* Pezzotti, G.
Nonaka, K., *see* Nakajima, H.
Nordström, E. G., *see* Leiro, J. A.

Ojima, K., and Takasaki, A.: High-resolution electron microscopy of the grey–white-tin interface 237
Okamoto, Y., *see* Pezzotti, G.
Öktü, Ö., Tolunay, H., Adriaenssens, G. J., Baranovskii, S. D., and Lauwerens, W.: Electron drift mobility in hydrogenated amorphous $Si_{1-x}C_x$ with a low carbon content 173

Pastore, G., *see* Tatlipinar, H.
Pezzotti, G., Hiesgen, R., and Nishida, T.: Characterization by atomic-force microscopy of nanometre-scale plastic damage in SiC single crystals after being sintered by hot isostatic pressing 45
Pezzotti, G., Okamoto, Y., and Nishida, T.: Subcritical crack growth in polycrystalline silicon nitride 283
Rajaraman, R., Amarendra, G., Viswanathan, B., and Gopinathan, K. P.: Effect of internal pressure on helium bubble growth in palladium 257
Rice-Evans, P., *see* Lockyer, R.
Romanov, A. E., *see* Nazarov, A. A.
Roy, T., *see* Mishra, R. S.

Saboungi, M.-L., *see* Fortner, J.
Sarholt-Kristensen, L., *see* Johnson, E.
Sassi, O., Aride, J., Berrada, A., and Moya, G.: Analysis of isochronal calorimetric measurements of point defect elimination in a quenched $Co_{48}Ga_{52}$ intermetallic compound 53
Schulthess, T., *see* Erbudak, M.
Sereni, J. G., and Trovarelli, O.: Enhanced superconductivity in Zr–Ce dilute alloys 231
Shinbo, I., *see* Nakajima, H.
Shirayaev, S. Yu.: Self-adjustment of misfit dislocations in compositionally graded $Si_{1-x}Ge_x$ layers 195
Sigle, W.: Structure refinement of quasicrystalline $Al_{62}Cu_{20}Co_{15}Si_3$ by electron channelling. 39
Singh, A. K., *see* Mishra, R. S.
Sleeckx, E., *see* Tichý, L.
Smallman, R. E., *see* Lee, C. S.
Smith, C., *see* Lockyer, R.
Smrčka, V., *see* Tichý, L.
Sun, Y. Q., *see* Jiang, N.

Takahashi, M., *see* Mitsui, K.
Takasaki, A., *see* Ojima, K.
Takeuchi, S., *see* Koshikawa, N.
Tanaka, K., Yoshida, N., and Yamaoka, Y.: Photo-induced chemical modification in Ag–As–S glasses. 81
Tatlipinar, H., Pastore, G., and Tosi, M. P.: Structure of ionic fluids in equilibrium with a microporous ionic matrix 357
Thoft, N. B., *see* Johnson, E.
Thompson, L. J., *see* Eastman, J. A.
Tichá, H., *see* Tichý, L.
Tichý, L., Smrčka, V., Tichá, H., Sleeckx, E., and Nagels, P.: On the origin of photo-induced and thermally induced irreversible bleaching of amorphous Ge–Se films 73

Tolunay, H., *see* Öktü, Ö.
Tosi, M. P., *see* Tatlipinar, H.
Trovarelli, O., *see* Sereni, J. G.
Tsai, A. P., *see* Nakajima, H.

Urban, K., *see* Wollgarten, M.

Vignoli, S., *see* Meaudre, R.
Viswanathan, B., *see* Rajaraman, R.

Walsh, C. A., *see* Müllejans, H.
Wang, R., *see* Feng, J.
Wang, Z., *see* Feng, J.
Weaire, D.: On the motion of vertices in two-dimensional grain growth . . . 93
Weaire, D., and Hobbs, D.: Electrons and holes in amorphous silicon . . . 265
Weaire, D., and Glazier, J. A.: Relation between volume, number of faces and three-dimensional growth laws in coarsening cellular patterns 363
Werfel, F., *see* Leiro, J. A.
Wetli, E., *see* Erbudak, M.
Wollgarten, M., and Urban, K.: Comment on 'Convergent-beam electron diffraction study of the Burgers vector of dislocations in icosahedral Al–Cu–Fe alloy' . 273

Xue, Y. Y., *see* Gao, L.

Yamaoka, Y., *see* Tanaka, K.
Yoshida, N., *see* Tanaka, K.

Zelin, M. G., and Mukherjee, A. K.: Common features of intragranular deformation slip and intergranular sliding 207
Zelin, M. G., and Mukherjee, A. K.: Deformation strengthening of grain-boundary sliding in a Pb–62 wt.% Sn alloy 201
Zhang, X. D., and Loretto, M. H.: Defect analysis in massively transformed Ti–50 at.% Al–2–at.% Nb–2at.% Mn alloy 289
Zhang, X. F.: Identification of the interface between a $SrTiO_3$ (001) substrate and a $Bi_2Sr_2CaCu_2O_x$ superconducting thin film 117
Zhao, L., and Baker, I.: Order and recrystallization in deformed Fe–70 at.% Co . 327
Zhou, L.-M., and Mai, Y.-W.: A new model for evaluation of the interfacial friction coefficient and residual clamping stress in a fibre-push-out test 5